AID P - 4972

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 21/21

Author : Fuks, G. I., Dr. Tech. Sci.

Title : On the book by M. P. Vukalovich and I. I. Novikov "Technical Thermodynamics", 2. ed., Gosenergoizdat, 1955. 336 p. (Book Review and Bibliography).

Periodical : Teploenergetika, 8, 64, Ag 1956

Abstract : A favorable book-review.

Institution : None

Submitted : No date

FUKS, G.I.

FUKS, G.I.

Mathematical formulation of the first law of technical thermodynamics. Izv. TPI 89:27-32 '57. (MIRA 10:12)
(Thermodynamics)

L 46178-66 EWT(m)/T IJ

ACC NR: AP6030588 (A,N) SOURCE CODE: UR/0413/66/000/016/0073/0073

INVENTOR: Fuks, G. I.; Gal'tsova, N. Ye.

ORG: none

TITLE: Instrument oil. Class 23, No. 184996

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 73

TOPIC TAGS: instrument oil, silicone lubricant, antioxidant additive, LUBRICATING OIL

ABSTRACT: An Author Certificate has been issued for an instrument oil based on a silicone fluid formulated to include 40—60% polyethylsiloxane fluid, 60—40% isoamyl capryl adipate, 0.02—0.1% p-hydroxydiphenylamine or ionol antioxidant additive, and 0.03—0.05% stearic acid. [SM]

SUB CODE: 11/ SUBM DATE: 27May63/

Card 1/1 mjs UDC: 621.892.091

L 21000-65 EWT(m)/EPF(c)/K/EPR/T/EWP(q)/EWP(b) Pr-4/Ps-4 AS(mp)-2/AFWL/
SSD/ESD(gs)/ESD(t) WW/DJ/WH
ACCESSION NR: AP4042329 S/0065/64/000/007/0059/0065

AUTHOR: Fuks, I. G.; Vaynshtok, V. V.; Chernozhukov, N. I.; Kartinin, B. N. 35 33

TITLE: Fillers as components of thickened lubricants.

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 7, 1964, 59-65

TOPIC TAGS: lubricant, lubricant filler, thickened lubricant, lithium lubricant, hermetic property, filler mechanism, yield value, particle size, inert filler, active filler, chemically reactive filler, amorphous lubricant, crystalline lubricant, fibrous lubricant structure, colloidal stability, molecular structure

ABSTRACT: The effect of fillers on the structure and properties of thickened lithium lubricants was investigated in order to obtain data on the mechanism of the action of the fillers and to study the possibility of increasing the hermeticity of the lubricants. Castor oil with 20 weight % lithium ricinoleate, and 5, 10, 15 and 30 wt.% of mica, graphite, chemically pure TiO_2 and oxides of lead, magnesium, zinc, iron and aluminum was used for the investigation. The fillers were added to the lubricant while it was held at 205-210C for 15 minutes. Hermeticity was determined by the maximum pressure that the lubricant could withstand and

Card 1/3

by the number of opened-closed stopcock cycles at 25-200 atmospheres before the seal was broken. It was concluded that the yield value obtained could be used as a basic laboratory index of the operating properties of the thickened lubricants. The nature of the filler and its particle size and concentration affect the yield value. The inert filler, graphite, did not change the molecular structure of the soap but increased the yield value approximately proportionally to its concentration. The particle size of the graphite changed the yield value only slightly. The active fillers TiO_2, Al_2O_3, Fe_2O_3 and mica did not affect the strength of the soap but raised the yield point much less than graphite. The effect of the particle size of this type of fillers on the yield value was significant. It was found that the finer particle material (35-50 micron) increasing the yield values much more than the larger particle filler (100-120 micron). The colloidal stability of the lubricant with mica was higher than with graphite. The chemically reactive fillers ZnO, MgO and PbO significantly lowered the yield value even at 5-10% concentrations, lowered the drop point 35-40 degrees, affected the colloidal stability and changed the structure of the lubricant from crystalline to amorphous (MgO and PbO) or fibrous (ZnO). Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: MINKh i GP

L 53602-65 EWJ(j)/EPA(s)-2/EWP(e)/EWT(m)/EPF(c)/EWP(i)/EPF(n)-2/EPR/EWP(j)
FCS(f)/EWP(t)/EPA(bb)-2/EWP(b) Pc-4/Pr-4/Ps-4/Pt-7/Pu-4 IJP(c)/RPL JD/
WW/JG/DJ/RM/WH

ACCESSION NR: AP5010982 UR/0318/65/000/004/0022/0025

AUTHORS: Fuks, I. G.; Ramazanov, R. A.; Vaynshtok, V. V.; Bel'tsova, A. M. 65 63 B

TITLE: Mass-mechanical and sealing properties of lithium packing greases

SOURCE: Neftepererabotka i neftekhimiya, no. 4, 1965, 22-25

TOPIC TAGS: sealing compound, packing material, grease, lithium compound, mineral oil, polymethacrylate

ABSTRACT: This paper presents the first results of experimental studies designed to find the relations between sealing properties of packing greases and their mass-mechanical properties. The greases on two types of devices were tested, one providing stoppage of rectilinear-flow movement, the other furnishing spigot-type cutoff. Lithium packing grease, with and without fillers, prepared with castor oil and with S-110 and S-220 mineral oils, were tested. Mica and graphite, ranging in grain size from 20-40 mμ to about 300 mμ, and MgO were used as fillers. Greases with polymethacrylate were also tested. Tests were made in kerosene at room temperature. Increase in lithium stearate from 15 to 30% in greases from S-220 oil led to marked increase in ultimate strength and effective viscosity, but had no appreciable effect on sealing. Grease from

Card 1/2

L 53602-65

ACCESSION NR: [illegible]010982

2

S--110 at same concentrations had somewhat lower rheological parameters, but had better sealing capacity, the capacity increasing slightly with increase in stearate. Different fillers had little effect on rheological properties of samples of lithium greases. Addition of polymethacrylate gave no positive results; the grease had lower sealing capacity than grease with filler. Increase in filler concentration, regardless of filler material, led to marked increase in shear strength and viscosity. Finer grain size of mica filler caused increase in mass-mechanical properties, but no such change was observed with graphite. The sealing capacity was found to depend strongly on size of filler particle, much less on concentration of filler. Mica, regardless of oil base, gave grease with the most stable sealing capacity. The authors conclude that the relations investigated are complex and that further work is necessary before precise conclusions can be drawn. Orig. art. has: 4 tables.

ASSOCIATION: MINKh; GP

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, FP

NO REF SOV: 006 OTHER: 000

Card 2/2

L 20365-66 EWT(m)/T/EWP(t) IJP(c) JD/JG/DJ

ACC NR: AP6006446 (A) SOURCE CODE: UR/0065/66/000/002/0024/0026

48
B

AUTHORS: Fuks, I. G.; Vaynshtok, V. V.; Chernozhukov, N. I.

ORG: MINKh I GP

TITLE: Influence of fillers on the thickening ability of lithium soaps

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 2, 1966, 24-26

TOPIC TAGS: lubricant, organometallic lubricant, lubricant additive, lithium compound, viscosity, lubricant filler additive

ABSTRACT: The effect of different fillers on the thickening ability of lithium soaps when added to castor oil and cabel oil "S-220" was investigated to extend the previously published work of I. G. Fuks, V. V. Vaynshtok, N. I. Chernozhukov, and B. N. Kartinin (Khim. i tekhnol. topliv i masel, No. 7, 1964). The thickening ability was determined at 0, 50, and 100C after the method described in Konsistentnyye smazki. Trudy MINKh i GP, vyp. 32 Gostoptekhizdat, 1960, and the effective viscosity was determined at 20C according to the procedure specified by GOST 7163-63. The experimental results are tabulated. It was found that the thickening effect of the lithium soap depended on the nature and concentration of the dispersive medium. Addition of mica and graphite fillers to lithium grease

Card 1/2 UDC: 621.892.8

L 20365-66
ACC NR: AP6006446

increases the viscosity and strength limit of the latter. The change in viscosity when expressed as a function of filler concentration exhibits a maximum. Orig. art. has: 3 tables.

SUB CODE: 11/ SUBM DATE: none

Card 2/2 vmb

L 29708-66 EWT(m)/T DJ
ACC NR: AP6015115 (A) SOURCE CODE: UR/0065/66/000/005/0026/0030

AUTHOR: Fuks, I. G.; Vaynshtok, V. V.; Kartinin, B. N.; Chernozhukov, N. I. 53

ORG: MINKh and GP B

TITLE: Effect of surface active agents on the structure and strength characteristics of lithium lubricants with fillers

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 5, 1966, 26-30

TOPIC TAGS: lubricant surface active agent, alkali metal lubricant, lithium compound, shear stress

ABSTRACT: The effect of stearic acid and glycerin admixtures on the structure and properties of lithium lubricants prepared with S-220 oil with and without fillers (mica and graphite in amounts of 5, 15, and 30 wt. %) was studied. The lubricants were prepared by thickening the oil with lithium stearate (20 wt. %). The dependence of the limit shear stress of the lubricants containing fillers on the concentration of the surfactants (stearic acid, glycerin, and water) has an extremal character: minimum limit shear stress values correspond to surfactant concentrations of

Card 1/2 UDC: 621.892.8

L 29708-66
ACC NR: AP6015115

O

up to 0.2% while maximum values correspond to higher concentrations. Critical concentrations of surfactants in the lubricants correspond to sharp differences in their structure. The presence of fillers enhances the effect of surfactants on the strength characteristics and causes the difference in the maximum values of the limit shear stress to increase (particularly when the concentration of fillers is raised). Glycerin and stearic acid considerably increase the thickening effect of lithium stearate in castor oil. Orig. art. has: 4 figures and 1 table.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 011/ OTH REF: 000

Card 2/2 CC

FUKS, I.I.

It is necessary to define clearly the tasks of the sections of the information services of scientific research institutes and design offices. NTI no. 2:20-21 '63. (MIRA 16:11)

1. Nachal'nik otdela nauchno-tekhnicheskoy informatsii Gosudarstvennogo nauchno-issledovatel'skogo instituta almaznogo instrumenta i protsessov almaznoy obrabotki, Moskva.

FUKS, I.I.; PETROV, S.P.; RAVIKOVICH, P.I.

Utilizing production potentialities. Leg.prom 14 no.5:14-17 My '54. (MLRA 7:6)

1. Glavnyy inzhener zavoda 1 Maya (for Fuks)
(Machine-tool industry)

ZHIDOVICH, A.I., kandidat tekhnicheskikh nauk; VARGA, R.Sh., kandidat tekhnicheskikh nauk; FUKS, I.I.; IVANOV, V.D., glavnyy konstruktor; TRUSHIN, Ye.M., inzhener-tekhnolog.

Instrument for testing the balance of flyer guides. Tekst.prom. 14 no.6:32-34 Je '54. (MLRA 7:7)

1. Glavnyy inzhener zavoda im. 1 Maya (for Fuks)
(Spinning machinery)

YERMAKOV, P.V.; RAVIKOVICH, P.I.; FUKS, I.I.

Founding machine parts in shell molds. Tekst.prom. 16 no.5:50-52 My '56. (MLRA 9:8)

(Shell molding (Founding))

TARASEVICH, Yuriy Sergeyevich; FUKS, I.I., inzh., retsenzent; LEYKIN, A.M., inzh., red.; SOROKA, M.S., red.izd-va; RUDENSKIY, Ya.V., tekhn.red.

[Designing dies for cold pressing] Konstruirovanie shtampov dlia kholodnoi shtampovki. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 187 p. (MIRA 12:2)
(Dies (Metalworking)) (Metals--Cold working)

S/118/62/000/001/005/005
D221/D301

AUTHORS: Chelishchev, B.A. and Fuks, I.I., Engineers

TITLE: Pneumatic and electric drives with straight line displacement for the automation of production

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 1, 1962, 35-40

TEXT: The author gives a comparison table of drives which shows that pneumatic and electric units are the most frequently adaptable for straight line actuation. The pneumatic drive is used for strokes up to 1 m, when there are no special requirements for speed stability and the force of resistance is low and constant. The speed attains 3-4 m/sec. The electromechanical drive may be used for lengths up to 10 m at a slow but constant speed, and where intermediate stops are necessary. Pneumatic cylinders developed by ENIKMASH are described. Nomograms for determining main characteristics under given operating conditions were plotted as a result of numerous experiments. The authors give the nomogram for a

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Pneumatic and electric drives ...

100 mm Ø cylinder. It was impossible to plot a similar one for 50 mm Ø cylinders, and the authors state that these can be used as controlling servodrives only. The nomograms allow computation of the actuation time for a distance L and a given load by $T = t_n + t_y + t_m$, where t_n is the preparatory time obtained by interpolation; t_y is the duration of the steady motion; t_m is the time of braking due to air cushioning which is assumed as 0.2-0.3 sec. The graphs of motion of the piston show non-oscillatory behavior when there is an air cushion at the end of the stroke. The stability of speed when the piston meets the air cushion is due to physical properties of air. Its volumetric outflow through small apertures in super critical conditions depends on the area of the hole and does not depend on pressure drop. This can be exploited in feeding cutting tools or when it is necessary to obtain a controlled speed of 5-0.5 mm/sec within a short distance. The air cushion design has many advantages. An example of application of the electromechanical drive is given for unit heads made by the Minskiy zavod avtomaticheskikh linii (Minsk Factory

Card 2/4

of Automatic Lines). An explosion-proof design was used in the mining equipment manufactured by the Konotopskiy elektromekhanicheskiy zavod (Konotop Electromechanical Plant). The electromechanical units are reliable, simple, have stable speed and permit large displacements with intermediate stops to be realized. The author points out the shortcomings of the Konotop units which lack brakes and require high speed switching. ENIKMASH developed a unit based on a normal electric motor which is illustrated. It is provided with a friction clutch and rubber buffers. The condition of limiting the wedge action of the screw is then $M_t \leq M_o \frac{\tan}{\tan} \frac{(\lambda + \rho)}{\lambda - \rho} k$, where M_t is the threading torque; M_o is the unlocking torque; ρ is the friction angle of the thread; λ is the helix angle of the thread and k is the safety coefficient, which is equal 0.6-0.8. The electric brake ensures greater accuracy of stops. It contains an a.c. solenoid, type ЭС1-6121К) (ES1-6121K) and a set of discs from a standard clutch made by the Elektrostanok factory. The coefficient of motor loading is small which permits frequent reversals. Applications of ball screws can greatly enhance the performance of these units. The

Pneumatic and electric drives ...

number of cycles with AOC-32-4 (AOS-32-4) motor is 20 per minute. There are 7 figures and 1 table.

Card 4/4

ACCESSION NR: AP4024472 S/0141/64/007/001/0101/0112

AUTHOR: Bass, F. G.; Fuks, I. M.

TITLE: Allowance for shadows in the scattering of waves by a statistically uneven surface

SOURCE: IVUZ. Radiofizika, v. 7, no. 1, 1964, 101-112

TOPIC TAGS: uneven surface, statistically uneven surface, scattering by inhomogeneities, shadow effect, sound wave reflection, reflection coefficient, average field intensity, average field potential, distribution density

ABSTRACT: The reflection of sound waves from a statistically rough surface is considered with allowance for the shadows produced by the projections on the surface. Formulas are derived in the Kirchhoff approximation for the reflection coefficient and for the average intensity of the scattered field. The average potential of the scattered field is determined under the assumption that the surface is described by a random function for which the joint distribution densities of the function and its first derivative are known. Only one-dimensional inhomogeneities on the surface are considered, but the results can be extended also to two-dimensional inhomogeneities. The results apply also to electromagnetic waves.

Card 1/2

ACCESSION NR: AP4024472

"In conclusion the authors are deeply grateful to I. L. Verbitskiy for a discussion of this work." Orig. art. has: 2 figures and 45 formulas.

ASSOCIATION: Institut radiofiziki i elektroniki AN UkrSSR (Institute of Radiophysics and Electronics, AN UkrSSR)

SUBMITTED: 06Apr63 DATE ACQ: 15Apr64 ENCL: 00

SUB CODE: PH NR REF SOV: 006 OTHER: 001

Card 2/2

FUKS, I. M.

"Influence of Bacterial Proteins on the Immunogenic Properties of Diphtherial Anatoxins." Thesis for degree of Cand. Medical Sci. Sub 6 Jul 50, Acad Med Sci USSR

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

FUKS, I.M.; PAVLOV, P.V., zaveduyushchiy; TIMAKOV, V.D., professor, direktor.

Sensitizing properties of diphtheria anatoxins. Zhur.mikrobiol.epid.i immun. no.4:19-24 Ap '53. (MLRA 6:6)

1. Otdel profilaktiki detskikh infektsiy Instituta epidemiologii i mikrobiologii imeni pochetnogo akademika N.F. Gamalei Akademii meditsinskikh nauk SSSR (for Pavlov, Fuks). 2. Institut epidemiologii i mikrobiologii imeni pochetnogo akademika N.F. Gamalei Akademii meditsinskikh nauk SSSR (for Timakov). (Diphtheria) (Toxins and antitoxins)

Diphtheria anatoxins proved to have a pronounced sensitizing effect in animal expts. The principal sensitizing factor is the toxic component of the anatoxin. The bacterial component also has sensitizing properties, but they are more weakly expressed than those of the toxic component.

252T18

FUKS, I.M.

Effect of bacterial protein on immunogenic properties of diphtherial anatoxins. Zhur.mikrobiol.epid.i immun. no.8:72-76 Ag '54. (MLRA 7:9)

1. Iz otdela profilatiki detskikh infektsiy (zav.P.V.Pavlov) Instituta epidemiologii i mikrobiologii imeni pochetnogo akademika N.F. Gamaley (dir. prof. V.D.Timakov)

(SHIGELLA DIPHTHERIAE,
anatoxin, eff. of bact. proteins on immunogenic properties)
(PROTEINS,
eff. of bact. proteins on immunogenic properties of diphtherial anatoxin)

Fuks, I.M.

FUKS, I.M.; SAGITOVA, R.G.; AL'GREN, V.M.

Effectiveness of vaccination against diphtheria. Zhur.mikrobiol. epid. i immun. no.9:24-25 S '55. (MLRA 8:11)

1. Iz Ufimskogo instituta vaktsin i syvorotok imeni Mechnikova (dir. U.S. [illegible]nikeyeva, nauchnyy rukovoditel'--prof. N.I.Mel'nikov)
(DIPHTHERIA, prevention and control,
vacc.,results)
(VACCINES AND VACCINATION,
diphtheria, results)

USSR/Microbiology. Microbes Pathogenic for Man and Animals F

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57760

Author : Fuks I. M.
Inst : Ufa Scientific-Research Institute of Vaccines and Sera
Title : Ways and Methods of Increasing the Effectiveness of Active Immunization against Diphtheria. Report 1. Effect of Specific Lysates Prepared with Distilled Water on the Immunogenic Properties of Diphtheria Antitoxins.

Orig Pub : Tr. Ufimsk. n.-i in-ta vaktsin i syvorotok, 1957, vyp 4, 105-111

Abstract : No abstract

Card 1/1

USSR/Microbiology. Microbes Pathogenic for Man and F

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57762

Author : Fuks I. M.
Inst : Ufa Scientific-Research Institute of Vaccines and Sera
Title : Ways and Methods of Increasing the Effectiveness of Active Immunization against Diphtheria. Report 111. Comparative Data on the Immunological Activity of Lysates of Diphtheria Bacteria Prepared by Various Methods

Orig Pub : Tr. Ufimsk. n.-i in--tavaktsin i syvorotok, 1957, vyp. 4, 123-137

Abstract : No abstract

Card 1/1

BASS, F.G.; BLIOKH, P.V., FUKS, I.M.

Statistical characteristics of a signal scattered by randomly moving reradiators on a plane boundary surface. Radiotekh. i elektron. 10 no.5:859-867 My '65. (MIRA 18:5)

FUKS, I.M.

Correlation functions of a wave field over a statistically uneven surface. Izv.vys.uchob.zav.; radiofiz. 8 no.1:104-115 '65.
(MIRA 18:6)

1. Institut radiofiziki i elektroniki AN Ukr.SSR.

FUKS, I.M.

Space-time correlations of a field above the sea surface. Izv.vys. ucheb.zav.; radiofiz. 8 no.1:191-192 '65. (MIRA 18:6)

1. Institut radiofiziki i elektroniki AN UkrSSR.

L 63055-65 EWT(d)/FSS-2/EEC(k)-2/EEC-4 Pn-4/Pp-4/Pac-4/Pg-4/Pt-7/
Pl-4 WS-4

ACCESSION NR: AP5013339 UR/0109/65/010/005/0859/0867
621.371.165:621.396.96

AUTHOR: Bass, F. G.; Blokh, P. V.; Fuks, I. M.

TITLE: Statistical characteristics of a signal scattered by randomly moving reradiators located on a plane interface

SOURCE: Radiotekhnika i elektronika, v. 10, no. 5, 1965, 859-867

TOPIC TAGS: millimeter wave, radiowave scatter

ABSTRACT: The scattering of radiowaves by vacillating reradiators randomly arranged in a flat high-absorption interface is theoretically considered. At variance with W. H. Peake's work (IRE Nat. Conv. Rec., 1959, 7, 1, 27), all reradiators are approximated by plane perfect-conductance plates whose characteristic dimensions considerably exceed the radiation wavelength. The scattering capability of the interface is characterized by the so-called "specific differential effective scattering cross-section" which is a ratio of the power

Card 1/2

L 63055-65

ACCESSION NR: AP5013339

scattered into a unit solid angle by a unit area of the interface to the density of the energy flux falling onto the interface. Formulas for calculating the coherent component of the scattered radiation are derived. The effect of the anisotropy of the reradiator conductance upon the mean-field polarization is investigated. Formulas for the dispersion index are developed for various polarizations of the transmitting and receiving antennas. The time correlation functions and the spectra of the incoherent component of scattered radiation, for various modes, are determined. Orig. art. has: 5 figures and 48 formulas.

ASSOCIATION: none

SUBMITTED: 12Mar64 ENCL: 00 SUB CODE: EC, DG

NO REF SOV: 003 OTHER: 004

Card 2/2

(N) L 11821-66 EWT(d)/EWT(l)/EEC(k)-2 RB/GW/WS-2

ACC NR: AP6002296 SOURCE CODE: UR/0141/65/008/006/1117/1127

AUTHOR: Kalmykov, A. I.; Ostrovskiy, I. Ye.; Rozenberg, A. D.; Fuks, I. M.

ORG: Institute of Radio Physics and Electronics, AN UkrSSR (Institut radiofiziki i elektroniki AN UkrSSR)

TITLE: Effect of sea-surface structure on the spatial characteristics of scattered radiation

SOURCE: IVUZ. Radiofizika, v. 8, no. 6, 1965, 1117-1127

TOPIC TAGS: sea wave scatter, radio wave scattering

ABSTRACT: The spatial correlation radius of scattered electromagnetic radiation and its connection with the dimensions of inhomogeneities of the sea surface have been theoretically and experimentally studied. The theory assumes this model of the sea surface that scatters radio waves in the cm-band: large swells, to which the Kirchhoff principle is applicable, and small ripples causing reflections which can be analyzed by a disturbance method. The theoretical results are used to interpret the experimentally found radii of correlation of radio-signal envelopes, the signals being scattered by separated sea areas. A special radar correlometer having high range resolution was used for measurements within an 8-mm to 4-m band. Simultaneously with radio-wave measurements, sea-wave characteristics were also measured. The

Card 1/2 UDC: 538.56:519.25

L 11821-66

ACC NR: AP6002296

sea-surface model selected is believed to be correct because a) the theoretical and experimental results are in good agreement and b) the measured radii of correlation of swells are independent of the radio wavelength. A connection is established between the above radii and the length and direction of sea waves. "The authors wish to thank V. I. Zelkin for his help in developing the equipment and in measurements and F. G. Bass for his useful advice." Orig. art. has: 7 figures and 23 formulas. [03]

SUB CODE: 17 / SUBM DATE: 05Apr65 / ORIG REF: 009 / ATD PRESS: 4186

Card 2/2

FUKS, I.M.; VALEYEVA, F.N.; POPKOVA, F.V.; VOLKOVA, L.[illegible]; BELOGOLOVSKAYA, T.A.; ROMASHKEVICH, I.K.; Prinimali uchastiye: MOROZOVA, L.M.; DASHEVSKAYA, S.I.; VAKHMINA, L.S.; KARAVAYEVA, G.V.; IVANOVSKIY, A.K.; ZHUKHINA, G.Ye.; SOLOV'YEVA, G.M.; ANDRIYANOVA, M.V.; AKHMETOVA, V.M.; NEMIROVSKAYA, M.Ye.; MUSORINA, L.S.; KALASHNIKOVA, Ye.I.; PESHKO, A.P.; IVANOVA, N.V.; ALKEYEVA, N.I.; SADOVNIKOVA, G.N.

Study on the possibility of reducing the diphtheria vaccine dose in revaccination of 9 to 12 year-old schoolchildren. Zhur. mikrobiol., epid. i immun. 41 no.11:103-107 '65. (MIRA 18:5)

1. Ufimskiy institut vaktsin i syvorotok imeni Mechnikova.

ACC NR: AP6033281 SOURCE CODE: UR/0141/66/009/005/0876/0887

AUTHOR: Fuks, I. M.

ORG: Institute of Radiophysics and Electronics, AN UkrSSR (Institut radiofiziki i electroniki AN USSR)

TITLE: The theory of radio wave scattering by ruffled sea surface

SOURCE: IVUZ. Radiofizika, v. 9, no. 5, 1966, 876-887

TOPIC TAGS: dielectric boundary, sea surface, scattering depolarization, frequency spectrum, perturbation theory, monochromatic wave , ocean dynamics, electromagnetic wave reflection, dielectric property, radio wave scattering

ABSTRACT: This article presents a study of the reflection of a plane monochromatic electromagnetic wave from a statistically rough dielectric boundary with arbitrary permittivity in a perturbation approximation. The statistical characteristics of the radar signal reflected from the agitated sea surface are investigated, including the scattering cross section, depolarization, and frequency spectrum. The model of the surface under consideration permits broader application of the perturbation theory in the diameter and centimeter wave lengths. Orig. art. has: 7 figures and 25 formulas.

SUB CODE: 08/ SUBM DATE: 07Dec65/ ORIG REF: 013/ OTH REF: 002

Card 1/1 UDC: 621.371.222.5

FUKS, I.T.; POPOV, B.I.

Electrolytic effect of the traction currents on the performance of the communication networks of electrified railroad districts running through hilly terrain. Avtom., telem. i sviaz' 6 no.3:34 Mr '62. (MIRA 15:3)

1. Zamestitel' nachal'nika Irkutskogo uchastka energosnabzheniya (for Fuks).
(Electric railroads--Communication systems)

BERDICHEVSKAYA, T.M.; FUKS, L.A.; SHVARTSMAN, B.F.

Temperature effect in seasonal and diurnal variations of mesonic intensity of cosmic rays on Cape Shmidt. Probl.Arkt. no.4: 51-64 '58. (MIRA 11:12)
(Shmidt, Cape--Atmospheric temperature) (Cosmic rays)

With Shvartsman, B. F. "Temperature Effect in Seasonal and Diurnal Variations of the Hard Component of Cosmic Rays from the Data Collected on Shmidt's Promontory Station." p. 118

in book Variations of the Intensity of Cosmic Rays, Moscow, Izd-vo AN SSSR, 1958, 168;. (Trudy, Seriye fizicheskaya, vyp. 2)

[IFAN SSSR]

This issue contains articles on experimental methods in the continuous registration of cosmic rays, the investigation of meteorological effects of the different components of cosmic rays, and the connection between variations in cosmic ray intensity and solar and magnetic activity.

FUKS, L.A., inzh.

The AK-10 turbogenerator in operation with and without steam.
Elek. sta. 33 no.7:84-85 Jl '62. (MIRA 15:8)
(Turbogenerators)

FUKS, L.A., inzhener.

"Exhaust" operation of the Ljungstrom turbine generator. Energetik 5 no.4:10 Ap '57. (MLRA 10:6)

(Turbines)

FUKS, L.A., inzh.

Vacuum system of an automatically controlled shore pumping station. Energetik 8 no.7:20-21 Jl '60. (MIRA 13:8)

(Electric power plants) (Pumping machinery)

FUKS, L.A., inzh.

Condensate level indicator in a turbine condenser. Energetik 10 no.3:14 Mr '62. (MIRA 15:2)
(Level indicators)
(Condensers (Steam))

FUKS, L.A., inzh.

Use of hydraulic drives in the slide gates of circulation water conduits. Energetik 11 no. 12:13-14 D '63.
(MIRA 17:5)

FUKS, L.A., inzh.

Mechanization of the cleaning of the water intakes of electric power plants without drying them. Energetik 12 no.1:16 Ja '64.
(MIRA 17:3)

FUKS, L.A., inzh. (Vorkuta)

Improvement of the worm gear transmission system of a turbine unit manufactured by the Skoda factory. Energetik 13 no.11: 12-13 N '65. (MIRA 18:11)

86798
S/142/60/000/003/013/017
E192/E482

9.3220

AUTHOR: [redacted]

TITLE: Pulse Transformer for Large Mark-to-Space Ratios

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, No.3, pp.394-401

TEXT: The operating conditions for the case when the duration of the space is insufficient for terminating the processes occurring at the end of a pulse in a transformer circuit are referred to as the large mark-to-space ratio operation. For the purpose of analysing this regime, it is assumed that the load of the transformer consists of a capacitance and a rectifier tube connected to an ohmic load. Rectangular voltage pulses are applied to the primary of the transformer by means of an idealized key (see Fig.1). The stray inductances and resistances of the windings are neglected. The equivalent circuit of the system is thus in the form shown in Fig.1, where L_M is the magnetization inductance, R_H is the load resistance (transferred to the primary) and C_0 is the capacitance of the windings and the load. It is assumed that $L_M = L_{M0} = \text{const}$, that is the permeability of the core is assumed to be constant. A train of rectangular pulses of an amplitude E,

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Pulse Transformer for Large Mark-to-Space Ratios

duration τ_u and period T_n is applied to the system by means of the key K. When the first pulse is terminated the magnetizing current in the inductance is given by

$$I_{M0} = \frac{E\tau_u}{L_{M0}} \qquad (1)$$

The operation of the system can be split into three intervals. In the interval between 0 and τ_u the key is closed and the voltage across the capacitance C_0 and load R_H is equal to E; in the interval ranging from τ_u and τ' the key is open and C_0 is discharged by R_H; in the interval between τ' and T_n the key is open and the load does not conduct. In general, it can be assumed that the discharging of C_0 through R_H is very fast and that τ' is comparable with τ_u. It can be assumed, therefore, that when the pulse is terminated the transformer contains some magnetic energy and no electrical energy. During the space this energy is exchanged between L_M and C_0. This process is

Pulse Transformer for Large Mark-to-Space Ratios

described by Eq.(3) whose solution is in the form of Eq.(4), where I_M is the value of the current at the end of the pulse and T_0 is defined by the third equation on p.396. When the next pulse appears the initial magnetizing current is expressed by Eq.(5), where τ_n is the duration of the space. The increase in the current during the pulse is expressed by Eq.(6) from which it is seen that at the end of the second pulse the magnetizing current I_M is greater than I_{M0}. The problem now consists of determining the position of the steady state pulse operation on the family of the hysteresis curves depending on the duration of the space between the pulses. The steady-state cycle is situated on the hysteresis loops in such a way that its origin lies at the point of the intersection of the hysteresis loop of the limiting symmetrical cycle with the axis B (see point O in Fig.4) and its end is situated on the principal magnetization curve at point A where $\Delta B = B_A - B_0$. The initial field can be represented by Eq.(8), where T is the oscillation frequency of the transformer circuit and L_M is defined by Eq.(9). In this, the quantities

Pulse Transformer for Large Mark-to-Space Ratios

$\mu_{\Delta 0}$ and μ_{Δ} represent the pulse permeability of the core in the cycles 0 - A and I - B. The initial field can therefore be expressed by Eq.(11) where φ_H is the function representing the descending portion of the hysteresis loop (see Fig.4). The "discharging" of the transformer between the pulses can be "accelerated" by introducing an additional damping resistance R_g. The equivalent circuit for the "discharge" is shown in Fig.5. The operation of this system is described by Eq.(14). The solution of Eq.(14) for a case of critical damping is in the form of Eq.(15), while the oscillatory discharge is represented by Eq.(16). The damping effect is illustrated in Fig.6, where Curve 1 is for the damping coefficient $\delta = 0$; Curve 2 represents the case when $\delta = 1/2(\omega_0)$, while Curve 3 illustrates the critical damping ($\delta = \omega_0$). It is possible to define for the transformer a quantity q which represents a parameter inverse to the mark-to-space ratio. This is represented by Eq.(17). It is shown that the minimum value of this parameter is expressed by the last equation on p.400, where λ and n are defined by Eq.(21),

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Pulse Transformer for Large Mark-to-Space Ratios

K is a constant and γ_0 is the permissible ratio of the current I_{M0} to the load current; in Eq.(21) n represents the number of the cycles of the modulated frequency of the oscillator in one pulse produced by the transformer (the pulses from the transformer are used to modulate an oscillator). The equivalent circuit of the pulse transformer shown in Fig.1 was investigated experimentally. Provided L_M was linear, the experimentally determined values of I_M/I_{M0} coincided with those obtained from Eq.(7). The author expresses his gratitude to Professor N.F.Vollerner for his assistance. There are 6 figures and 5 references: 4 Soviet and 1 non-Soviet.

ASSOCIATION: Kafedra radiopriyemnykh ustroystv Kiyevskogo ordena Lenina politekhnicheskogo institute (Department of Radio Receiving Devices of Kiyev "Order-of-Lenin Polytechnical Institute)

SUBMITTED: July 14, 1959 (initially)
October 17, 1959 (after revision)

FUKS, L.B.

Permissible operation of vacuum-tube devices with pulses having a long duration. Izv. vys. ucheb. zav.; radiotekh. 4 no.1:98-100 Ja-F '61. (MIRA 14:4)

1. Rekomendovano kafedroy radiopriyemnykh ustroystv Kiyevskogo ordena Lenina politekhnicheskogo instituta.
(Electronic apparatus and appliances)
(Pulse techniques (Electronics))

34262
S/142/61/004/005/008/014
E192/E382

9,2120 (1147, 1331, 1482)

AUTHOR: Fuks, L.B.

TITLE: Oscillatory demagnetization of the core of a pulse-transformer

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v.4, no. 5, 1961, 592 - 598

TEXT: Several methods of demagnetizing the core of a pulse-transformer are known (Ref. 1: Ya.S. Itskhoki - Pulse-transformers, Sovetskoye Radio, 1950; Ref. 2: Ya.S. Itskhoki - Pulse techniques, Sovetskoye Radio, 1949 and Ref. 3: T. Douma - Proc. Nat.Electr. Conf., 1957, 12, 1043). Apart from these methods, it is possible to demagnetize the core by employing the decaying oscillatory current produced during the interval between the successive pulses. This method is analyzed and, for the purpose of analysis, it is assumed that the pulse-transformer can be represented by the equivalent circuit shown in Fig. 1a, where r_1 is the resistance of the first winding, r_2 is the transferred resistance of the second winding,

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Oscillatory demagnetization ....

L_M is the magnetizing inductance, L_S is the total transferred stray inductance, C_0 is the transferred capacitance of the second winding and load, R_* is the equivalent loss resistance of the core and R_H is the transferred load. It is assumed that the transformer operates with a pulse-modulator where the demagnetization of the core is particularly important. The differential equation for the demagnetization current during the interval between the pulses is in the form:

$$\frac{d^2 i_M}{dt^2} + \frac{1}{R_* C_0} \cdot \frac{di_M}{dt} + \frac{1}{L_M C_0} \cdot i_M = 0 \qquad (1) .$$

The solution of this equation for the case of oscillatory demagnetization is in the form:

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$$i_M = \frac{I_{M0}}{\sin\psi} \cdot e^{-\delta t} \cdot \sin(\omega t + \psi) \qquad (2)$$

where

$$\delta = \frac{1}{2R_* C_0}, \qquad \omega_0 = \frac{1}{\sqrt{L_M C_0}},$$

$$\omega = \sqrt{\omega_0^2 - \delta^2}, \qquad \psi = \text{arc tg}\left(\frac{\omega}{\delta + \frac{U_0}{L_M I_{M0}}}\right).$$

Similarly, it is possible to obtain an equation for the voltage U (see Fig. 1). By considering Eq. (2) it is found that if the quality factor of the transformer network is

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sufficiently high, the amplitude of the first negative overshoot of the demagnetization current can be almost equal to the positive magnetizing current I_M. It is also found by considering the phenomena occuring in the core that, in this case, the demagnetization proceeds along a symmetrical loop on the hysteresis curve of the core. On the other hand, in the absence of this demagnetization effect the core operates along a unipolar pulse cycle. Furthermore, in the presence of a negative demagnetizing current, demagnetization can follow the "initial cycle" and this has the advantage that the required quality factor of the transformer network is lower than in the case of the symmetrical cycle. It is found that the quality factor required for the "initial-cycle" operation is $Q \geq 2$. By considering the eddy current and hysteresis losses which determine Q of the transformers, it is found that for cold-rolled silicon steel cores with laminations of 0.1 mm thickness, $Q = 2$ can be obtained if the pulse duration is greater than 10 μsec. On the other hand, for modern high-frequency magnetic materials Q_2 and satisfactory

L 6397-66 EWT(1) WR

ACC NR: AP5020928 SOURCE CODE: UR/0142/65/008/003/0360/0362

AUTHOR: Vollerner, N. F. (Prof.); Vasyuk, G. I.; Fuks, L. B.

37
23

ORG: none

TITLE: The problem of a probing pulse with a narrow spectrum

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 3, 1965, 360-362

TOPIC TAGS: radar pulse, pulse shape, radar frequency bandwidth

21

ABSTRACT: To achieve highest velocity resolution (minimum ΔV) in a radar pulse, pulses with the narrowest possible bandwidth are required. The direct relationship between echo-signal attenuation N and limiting ΔV is used in selection of the best pulse shape. Development of quantitative relationships or examination of cases of radical alteration of parameters of the radar other than pulse shape is avoided. Two cases are considered: the first involves discrimination between objects with widely differing echo cross sections (this requires resolution of signal "tails" and therefore normalization of pulses over the full duration of the emission); and the second guarantees high discrimination of a stationary object on a reflective

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background (here normalization over the time interval containing the major portion of the energy is important, and the length and form of "tails" are secondary). The rectangular pulse shape has the highest concentration of energy in time at a given peak power; the sin x/x shape has highest concentration of energy in a bandwidth at a constant spectral density; the bell shape has in practice the highest possible concentration of energy simultaneously in time and in a bandwidth. Comparison of the different pulse shapes for the first case shows superiority of the sin x/x pulse. In the second case the bell-shaped pulse is best. The rectangular pulse can be used in the event of low values of N but does not reduce ΔV. The sin x/x pulse has some advantages for high values of N but is not very promising in a real noise environment. The bell-shaped pulse is in general the best choice for low ΔV, but in practice the rectangular pulse is sufficiently effective and requires simpler apparatus. The rigorous treatment of M. S. Gurevich [Gurevich, M. S., *Spektry radiosignalov*, Svyaz'izdat, 1963] is similar to the first case and indicates the need for the same type of treatment of the second case. Orig. art. has: 2 figures.

SUB CODE: EC/ SUBM DATE: 05Jun64/ ORIG REF: 007/ OTH REF: 000

Card 2/2

8(3) S/119/60/000/03/005/017
B014/B007

AUTHOR: Fuks, L. G., Engineer

TITLE: Thermal Calculation of Lamellar Shunts for Strong Direct Currents

PERIODICAL: Priborostroyeniye, 1960, Nr 3, pp 11-13 (USSR)

ABSTRACT: Calculation of the length L of the lamellas of a shunt proceeds from the ratio (1) between length and cross section of the lamella, and on the basis of relation (3) for the heat developed in the lamella, equation (4) is obtained for L. According to GOST 8042-50, equation (5) is then obtained for manganese lamellas for L. Further, the method of calculating permanent shunt load is dealt with. Figure 1 shows a lamella, and above it, the temperature course is given. For the temperature course on the various shunt elements formulas are derived, and equations are obtained for the heat quantities produced in the individual elements. Thus, the problem of calculating a shunt is reduced to a selection of the proper cooling surfaces of the lamellas, which warrants the elimination of the heat quantity produced at a certain temperature. In the last part

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Thermal Calculation of Lamellar Shunts for Strong Direct Currents

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of the paper an example is calculated in detail. A shunt for 100 Mv and 4000 a with temperatures not higher than 120°C is calculated, for which case air temperature is assumed to be 35°C. There are 3 figures and 4 Soviet references.

Card 2/2

FUKS, L. G.

Cand Tech Sci - (diss) "Thermal estimation and heat yield of laminated shunts involving high direct currents." Tomsk, Pub. Tomsk Univ, 1961. 12 pp; (Ministry of Higher and Secondary Specialist Education USSR, Tomsk Order of Labor Red Banner Polytechnic Inst imeni S. M. Kirov); 150 copies; price not given; (KL, 7-61 sup, 248)

27350
S/143/61/000/003/003/005
D201/D303

26.5200

AUTHOR: Fuks, L.G., Engineer

TITLE: Free convection in a warmed vertical gap

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 3, 1961, 59 - 65

TEXT: The author states that there exists an optimal width of the air gap where the heat transfer is somewhat bigger than that of the single plates which form the gap. The object of the article is to study the influence of the air gap, between plates, on the coefficient of heat transfer on the vertical gaps. With the notation as in Fig. 1, the equations of the heat transfer and of energy are written after simplification as

$$u\frac{\partial u}{\partial x}+v\frac{\partial u}{\partial y}=\nu\frac{\partial^2 u}{\partial y^2}+\beta g(t-t_0), \quad (1)$$

$$u\frac{\partial t}{\partial x}+v\frac{\partial t}{\partial y}=a\frac{\partial^2 t}{\partial y^2}, \quad (2)$$

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Free convection in a warmed ...

where β - the coefficient of voluminous expansion, a - temperature conductivity, u, v - components along axes x and y respectively. The mean velocity of air in the gap is

$$u_{cp} = \frac{1}{2s}\int_{-s}^{+s} u\,dy = \frac{\beta g (t_{cp} - t_0) s^2}{3\nu}. \qquad (5)$$

The author introduces the notation of relative temperature

$$\theta = \frac{t - t_0}{t_1 - t_0}, \qquad (11)$$

The mean temperatures t_2 and tcp could then be written as

$$\theta_2 = 1 - \frac{8}{\pi^2}\exp\left(-\frac{\pi^2 ab}{4u_{cp}s^2}\right), \qquad (12)$$

$$\theta_{cp} = 1 - \frac{u_{cp}s^2}{3ab} + \frac{32u_{cp}s^2}{\pi^4 ab}\exp\left(-\frac{\pi^2 ab}{4u_{cp}s^2}\right). \qquad (13)$$

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Free convection in a warmed ...

The temperature at the end of the gap and the relative mean temperature are functions of the quantity $u_{cp}s^2/ab$, which represents the Peckle's criterion multiplied by the width of the gap

$$\frac{u_{cp}s^2}{ab} = Pe_s \frac{s}{b} . \qquad (14)$$

The index s means the middle of the gap. The air movement in a vertical gap is caused by the difference of densities of the warm and cold air in the gap. At small changes of temperatures the variation in the density could be neglected. Then

$$\frac{1}{2}\left(\xi_{input}\frac{\gamma_{cp}}{\gamma_c} + \xi_{output}\frac{\gamma_2}{\gamma_0}\right) \approx 0.75$$

where $\xi_{input} = 0.5$; $\xi_{ouput} = 1.0$.

The author next considers the resulting heat transfer in the gap

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Free convection in a warmed ...

(Fig. 1) $$\alpha b(T_1 - T_0) = u_{cp} c \gamma_{cp} s(T_2 - T_1). \quad (23)$$

where α - coefficient of the heat convection of plates, c - heat capacity of air at constant pressure. Then

$$Nu_s = \frac{\alpha s}{\lambda} = \frac{\theta_2}{\alpha}. \quad (24)$$

The relation between the criterion of similarity at a given Prandtl's criterion. Line 3 in Fig. 2 shows the relation between Nusselt's and Grasshoff's criteria respectively for air. The dependence between the parameters could be simplified for the interval of small values of Grasshoff's criterion. For air at $Gr_s \frac{s}{b} =$ $= 0.1 \div 10$, it could be written

$$Gr_s \frac{s}{b} = 4.28 Nu_s \frac{3 + Nu_s}{3 - Nu_s} \quad (25)$$

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Free convection in a warmed ...

or

$$Nu_s = \frac{6Gr_s \frac{s}{b}}{12{,}84 + Gr_s \frac{s}{b}} \cdot \frac{1}{\sqrt{1 + \frac{51{,}4Gr_s \frac{s}{b}}{\left(12{,}84 + Gr_s \frac{s}{b}\right)^2}} + 1} \qquad (25a)$$

The above expression is represented by curve 4 in Fig. 2. Eq. (24) was checked experimentally in shallow vertical gaps, the plates' temperatures and the quantity of dissipated heat were measured. The presence of the critical width of the air gap was found. The critical gap with the heat dissipation in air is determined by Grasshoff's number

$$Gr_s \frac{s}{b} \geq 20. \qquad (26)$$

The dimension of a critical air gap could be determined from the mutual effect of neighboring layers of plates. Prandtl's criterion for air is near to unity. Then the velocity and the temperature

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boundary layers will be similar. The velocity in the boundary layer is found from

$$\nu \frac{d^2u}{dy^2} = -\beta g(t - t_o). \qquad (3)$$

The boundary conditions for a single plate are $y = 0$, $u = 0$; $y = \delta$, $u = 0$, where δ - thickness of the boundary layer. The solution of Eq. (3) for the boundary conditions gives

$$u = \frac{\beta g(T_1 - T_o)}{2\nu} (y\delta - y^2). \qquad (27)$$

A free convection in a laminary zone is given by

$$Nu_b = 0.54(Gr_b \cdot Pr)^{0.25}. \qquad (32)$$

By introducing a new linear parameter S the above expression is transformed into

$$Nu_s = 0.54(Gr_s \frac{s}{b} Pr)^{0.25} \qquad (33)$$

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D201/D303

It follows from Fig. 2, that near the critical air gap, this is

$$Nu_s = 0.65(Gr_s \frac{s}{b} Pr)^{0.25}, \quad (34)$$

which is plotted in Fig. 2 as curve 1. There are 3 figures and 13 references: 6 Soviet-bloc and 7 non-Soviet-bloc. The references to the English-language publications read as follows: M. Finston, Free convection past a vertical plate. Zeitschr. f. angewan. Math. u. Physik, vol. 7, fasc. 6, 1956; O.A. Saunders, Natural convection in liquids. Proceedings of the Royal Society of London, Ser. A, vol. 172, 1939; E.M. Sparrow, J.L. Gregg, The variable fluid property problem in free convection. Trans. of ASME, vol. 80, no. 4, 1958; E.M. Sparrow, J.L. Gregg, Similar solutions for free convection from a non isothermal vertical plate. Trans. ASME, vol. 80, no. 2, 1958.

ASSOCIATION: Tomskiy ordena trudovogo krasnogo znameni politekhnicheskiy institut imeni S.M. Kirova (Tomsk Order of the Red Banner of Labor Polytechnic Institute im.S.M. Kirov)

SUBMITTED: April 24, 1960

FUKS, L.G., inzh.

Free convection in a heated vertical slot. Izv. vys. ucheb. zav.; energ. 4 no.3:59-65 Mr '61. (MIRA 14:3)

1. Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut imeni S. M. Kirova. Predstavlena kafedroy kotlostroyeniya i kotel'nykh ustanovok.
(Heat--Convection)

FUKS, G.I., doktor tekhn. nauk; FUKS, L.G., inzh.

Concerning an error in the handbook "Engineering thermodynamics" by M.P. Vukalovich and I.I. Novikov. Izv. vys. ucheb. zav.; energ. 6 no.9:121-122 S '63. (MIRA 16:12)

1. Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut imeni S.M. Kirova. Predstavlena kafedroy teoreticheskoy i obshchey teplotekhniki.

FUKS, L.G., prof., doktor

Temperature field in a rectangular bar with internal heat emission. Izv.TPI 137:29-33 '65.

Heating of a shunt during overload currents. Ibid.: 34-38.

(MIRA 19:1)

FUKS, L.K., arkhitektor

Machine room for multirope hoisting plants (from foreign journals). Ugol' Ukr. 3 no.4:42-43 Ap '59. (MIRA 12:7)
(Mine hoisting)

FUKS, L. K.

Make multirope hoisting terminology precise. Ugol' Ukr. 7 no.4:29 Ap '63. (MIRA 16:4)

1. Gosudarstvennyy institut po proyektirovaniyu shakhtnogo stroitel'stva v yuzhnykh rayonakh SSSR.

(Mine hoisting—Terminology)

FUKS, L.K.

System of technical information in a design institution. Vych. i org.-tekh. v stroi. i prom. str. no.2:17-20 '61. (MIRA 18:10)

1. Khar'kovskiy Promstroyproyekt.